Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Oasis Petroleum North America LLC
Well Name/Number: Sam 2858 12-17H
Location: NE NW Section 17 T28N R58E
County: Roosevelt**, MT; Field (or Wildcat)** Wildcat (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time: No, 30 to 40 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 19,909'MD/10,015'TVD.
Possible H2S gas production: Yes, slight H2S possible.
In/near Class I air quality area: No Class I air quality area nearby.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
X Air quality permit (AQB review)
X Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____

Comments: Existing pipeline for H2S gas in the area or if no gathering system nearby H2S gas can be flared under Board Rule 36.22.1220.

Water Quality

(possible concerns)
Salt/oil based mud: Yes to oil based invert drilling fluids for intermediate casing hole. Horizontal hole will be drilled with saltwater. Surface casing hole will be drilled with freshwater and freshwater mud system.
High water table: Possible high water table in the area of review.
Surface drainage leads to live water: No, closest drainage is irrigation diversion ditch to the Shotgun Reservoir, about 1/8 of a mile to the southwest and south from this location. This reservoir supplies irrigation water for a ditch that runs to the southeast and eventually diverts back into Shotgun Creek.
Water well contamination: No, closest water wells are about 1/2 of a mile to the south, about 5/8 of a mile to the south and about 5/8 to 1 mile to the northwest from this location. All other wells are 1 mile and further from this location. Depth of these wells(stock, domestic and monitoring) are from 13' to 240'. This well will be drilled with freshwater and freshwater mud to 1,690' and steel surface casing will be run and cemented to surface to protect groundwater.
Porous/permeable soils: No, sandy silty clay soils.
Class I stream drainage: No, Class I stream drainages.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____

Comments: 1,690' surface casing will be drilled with freshwater, steel casing will be run to 1,690' and cemented back to surface, to protect freshwater zones in adjacent water wells, also covering the Fox Hills aquifer. Adequate surface casing and operational BOP equipment will prevent problems.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None anticipated.
High erosion potential: No, location will require a small cut of up to 2.5' and a small fill of up to 1.0', required.
Loss of soil productivity: No, location to be restored after drilling, if nonproductive. If productive unused portion of this drillsite will be reclaimed.
Unusually large wellsite: No, large well site 430'X320'
Damage to improvements: Slight surface use appears to be cultivated land.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
_X Other Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be over existing county road, #1015. About 3897' of new access road will be built into this location off the existing county road. Oil based invert drilling fluids will be recycled. Completion fluids will hauled to a commercial Class II disposal. Cuttings and solids will be buried and solidified on site in the lined reserve pit. The pit will be allowed to dry and the pit backfilled. No concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Nearest residences, none within a 1mile radius from this location. The Town of Bainville, Montana is about 3.4 miles to the southeast from this location.
Possibility of H2S: Yes, slight chance.
Size of rig/length of drilling time: Triple drilling rig 30 to 40 days drilling time.

Mitigation:
_X Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____
Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No
Conflict with game range/refuge management: No
Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Interior Lease Tern, Whooping Crane and Piping Plover. Candidate species is the Sprague's Pipit. NH tracker website indicates five (5) species of concern. They are the Le Conte's Sparrow, Nelson's Sparrow, Sedge Wren, Bobolink and Whooping Crane.

Mitigation:

__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____

Comments: Private cultivated surface land. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified.

Mitigation

__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other: _____

Comments: Private cultivated surface land. There may be possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

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Social/Economic

(possible concerns)

__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation

Comments: Wildcat well. No concerns

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Remarks or Special Concerns for this site

An exploratory single lateral horizontal Bakken Formation test of 19,909'MD/10,015'TVD.

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Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected, some short term impacts will occur, but can be mitigated.

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I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: January 14, 2012

Other Persons Contacted:

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_Montana Bureau of Mines and Geology, GWIC website _____
(Name and Agency)
Roosevelt County water wells_____
(subject discussed)
January 14, 2012_____
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Roosevelt County, Montana
(subject discussed)
January 14, 2012

Montana Natural Heritage Program Website
(Name and Agency)
Heritage State Rank= S1, S2, S3, Location T28N R58E
(subject discussed)

_January 14, 2012 _____
(date)

If location was inspected before permit approval:
Inspection date: ___
Inspector: _____
Others present during inspection: _____